Advanced Video Imaging

Projection Color TV
Picture-In-Picture
MTS Stereo Audio
Surround Sound





WARNING





WARNING:

TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER TO QUALIFIED SERVICE PERSONNEL.

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Safety Tips

Refer to the "Safety Tips" booklet that came with your product for important safety considerations.

Note to Cable TV System Installer

This reminder is provided to call the cable TV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of the cable entry as practical.

Power-Cord Polarization

This product is equipped with a polarized alternatingcurrent line plug (a plug having one blade wider than the other.) This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

CAUTION

To prevent electric shock, match wide blade of plug to wide slot, fully insert.

ATTENTION

Pour éviter les chocs électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

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FEATURES PROVIDED WITH YOUR TV

This operating guide describes a family of TV models. Not all models have all of the features described in this guide. Different control panels may be used from model to model. Most models include the following features:

On-Screen Menus Accessed By Remote or TV Controls	Audio/Video (A/V) Jacks
Multi-Brand Programmable Remote Control	Super-VHS A/V Input Jacks
Picture-In-Picture	Surround Sound System
Automatic Channel Programming	MTS Stereo with SEQ (Spatial Equalization)
Favorite Channel Add/Delete	Surround Sound Speaker Terminals
Channel Labels (ABC, TNT, etc.) for Easy Channel Identification	Variable Audio Output Jacks
Multiple Input Sources	Surround Sound Speakers (Optional)
Source Identification (VCR, Cable, etc.)	Sleep Timer and On/Off Timer
Antenna/Cable and Loop Out Jacks	Closed Caption and Text Modes
181 Channel Tuning	Parental Control

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INTRODUCTION

WELCOME

Welcome into the family of Zenith Color Television owners. This guide provides instructions on how to operate your new TV. It is supplemented by a booklet containing Safety Tips. We urge you to read these publications carefully so that you will receive full enjoyment from your new Zenith TV for many years to come.

Your new Zenith projection TV has been designed and built to give you the very best in quality, features and performance. There are many regional Zenith Authorized service centers throughout the U.S., Canada and Mexico who can attend promptly and effectively to ordinary service needs.

If you should have an unusual performance or service problem that cannot be satisfactorily resolved by your Zenith Authorized service center, call or write:

Zenith Electronics Corporation

Customer Service Department 1000 N. Milwaukee Avenue Glenview, IL 60025 Telephone: (312) 745-5152

Mon-Fri, 8:00 a.rn. - 4:30 p.m. Central Time

Send the model number, serial number, and date of purchase or original installation, with a full explanation of the problem and the service history. We will welcome the opportunity to look into your specific question or problem and to be of assistance in resolving it promptly.

The model and serial numbers of your new TV are located on the back of the TV cabinet. For your future convenience and protection, we suggest that you record these numbers here:

Model No.	 	 	
Serial No			

INSTALLATION CONSIDERATIONS

Before you install your TV...



Ventilation — Proper ventilation keeps your TV running cool. Air circulates through perforations in the back and bottom of the cabinet. Do not block these vents or you will shorten the life of your TV.



Power Source — Your TV is designed to operate on normal household current, 120 volt 60 Hertz AC. Do not attempt to operate it on DC current.



Power Cord — Your power cord has a polarized plug as required by Underwriters' Laboratories. It has one regular blade and one wide blade and fits only one way into a standard electrical outlet. If the blades will not enter either way, your outlet is very old and non-standard. A new outlet should be installed by a qualified electrician.



Safe Operation — Your TV is manufactured and tested with your safety in mind. However, unusual stress caused by dropping or mishandling, exposure to flood, fire, rain or moisture, or accidental spilling of liquids into the TV, can result in potential electrical shock or fire hazards. If this happens, have your TV checked by a service technician before using it again.

Please read and observe each safety point in the "Safety Tips" folder when installing and using your TV.

VIDEO GAMES AND OTHER FIXED

PATTERN DISPLAY CAUTION — If you use your TV for video games, teletext or other fixed displays, avoid setting the BRIGHTNESS control for an excessively bright picture. A bright, fixed pattern, if used for long periods of time, can result in a permanent imprint on the TV picture tube. You can reduce this possibility by alternating the use of the fixed pattern display with normal TV picture viewing, by turning down the CONTRAST control for sustained fixed pattern use, and by turning off the fixed pattern display when not in use.

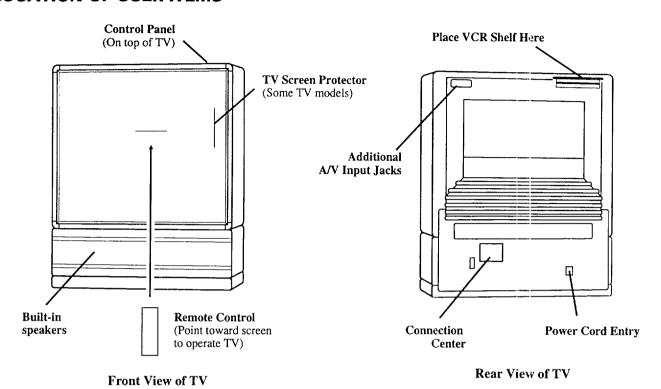
PLUGGING IN YOUR TV — Be sure to plug your TV into an "unswitched" AC power source. The "switched" AC outlets found on some video equipment will not continue supplying power to the TV once the equipment is turned off. If the power to the TV is interrupted, you will have to reset the clock in the TV to the current time.

PICTURE SCREEN CLEANING — Use a soft cloth moistened with warm water and rub lightly in the soiled areas of the screen. DO NOT USE A TISSUE OR PAPER TOWEL, AS THESE MAY DAMAGE SURFACE. Wipe only in the vertical (up/down) direction (along the grooves). If there is a dirt buildup, a mild solution of warm water and Ivory dishwashing detergent may be used. Use dry soft cloth to dry the screen. Care should be taken to avoid scratches or damage to the screen surface.

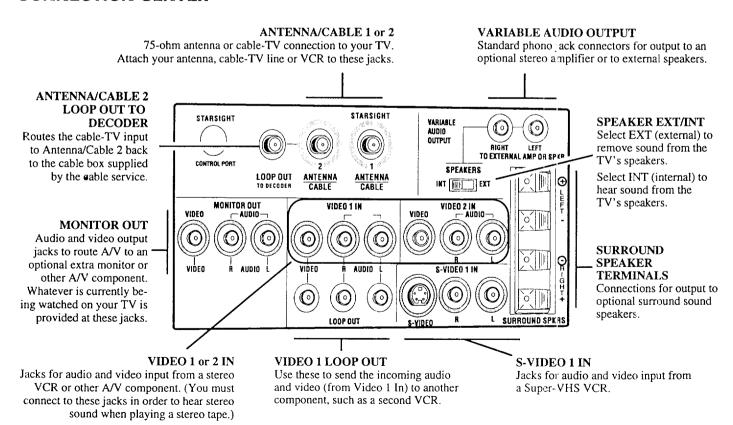
NOTE — The TV screen is easily damaged. Avoid accidental contact with the screen.

TVWELPRO ii

LOCATION OF USER ITEMS

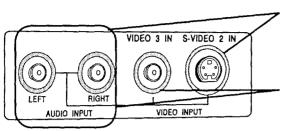


CONNECTION CENTER



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OTHER JACKS ON TV (Some Models)



S-VIDEO 2 IN

Jacks for audio and video input from a second Super-VHS VCR.

VIDEO 3 IN

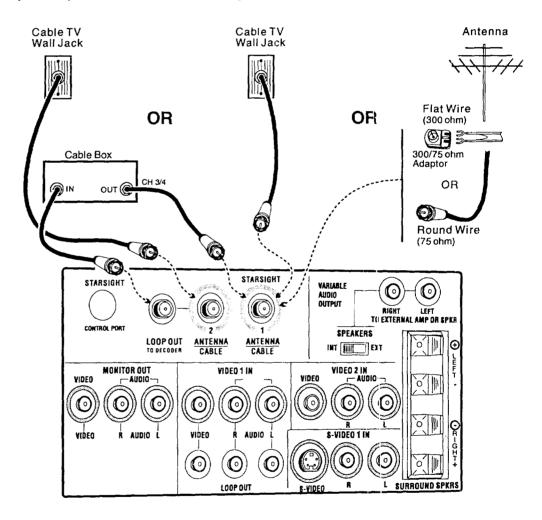
Jacks for audio and video input from a third stereo VCR or other A/V component.

BASIC CONNECTION TO TV WITHOUT VCR

If a VCR will not be connected to your TV, you have three basic connection options, as shown.



TURN OFF POWER OR UNPLUG TV BE-FORE MAKING ANY CONNECTION.

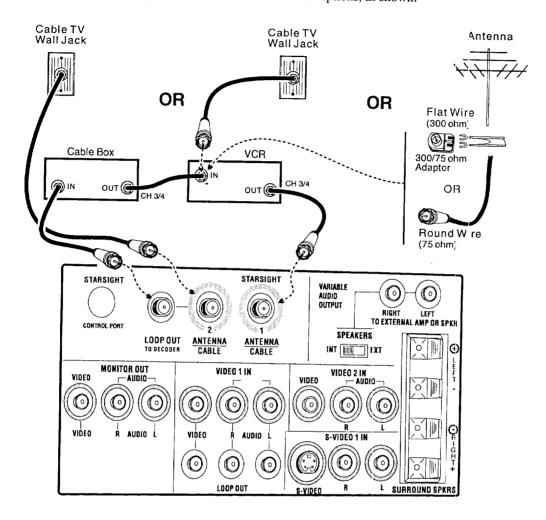


OPERATING YOUR TV		
With Cable Box	Without Cable Box	
Select Ant/Cable 1 in Source Menu.	Select Ant/Cable 1 in Source Menu.	
• Tune TV to cable box output channel (usually channel 3 or 4).	Use TV to select channels for viewing.	
• Use cable box to select channels for viewing.		

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BASIC CONNECTION TO TV WITH VCR

If you are connecting a VCR to your TV, you have three basic connection options, as shown.

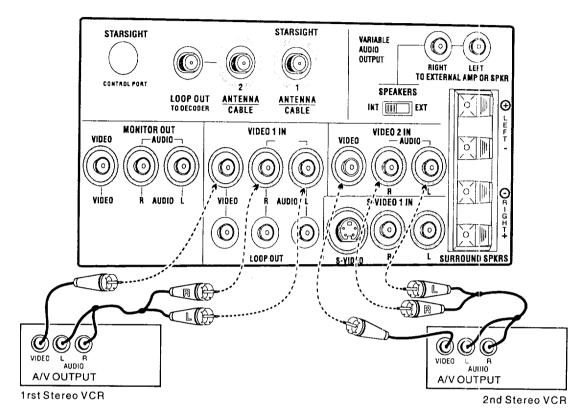


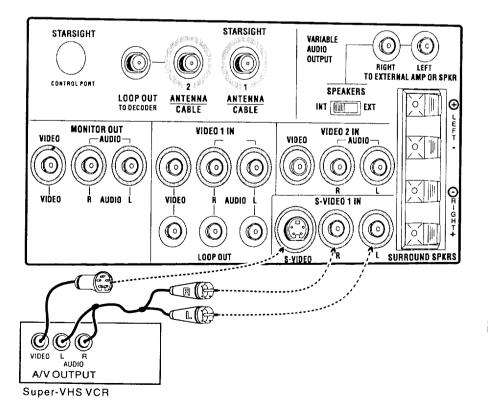
OPERATING YOUR TV			
VCR's TV/VCR* Switch Setting	With Cable Box	Without Cable Box	
TV	 Select Antenna/Cable 1 in Source Menu. Tune TV to cable box output channel (usually channel 3 or 4). Use the cable box to select channels for viewing. 	Select Antenna/Cable 1 in Source Menu. Use TV to select channels for viewing.	
VCR	 Select Antenna/Cable 1 in Source Menu. Tune VCR to cable box output channel (usually channel 3 or 4). Tune TV to VCR output channel (usually channel 3 or 4). Use the cable box to select channels for viewing. 	 Select Antenna/Cable 1 in Source Menu. Tune TV to VCR output channel (usually channel 3 or 4). Use VCR to select channels for viewing. 	

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VCR CONNECTIONS TO TV

If you have a stereo VCR, or other stereo audio/video component, you must make the connections shown below in order to hear stereo sound from the component.





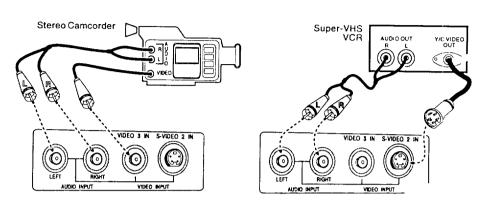
OPERATING YOUR TV USING A/V JACKS

- Select Video 1* from the Source Menu.
- Use VCR (or other component) to select channels for viewing.
- Watch a tape playing in the VCR.
- * Select the Source in the Source Menu that corresponds to the jacks to which the A/V component is connected.

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AUDIO/VIDEO (A/V) CONNECTIONS FOR OPTIONAL VIDEO EQUIPMENT

Connections to VIDEO 3 IN or S-VIDEO 2 IN jacks. (Some TV models only.)

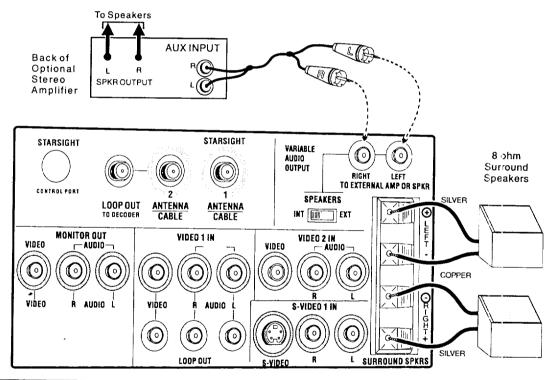


OPERATING YOUR TV USING A/V JACKS

- Select Video 1* from the Source
 Menu
- Use VCR (or other component) to select channels for viewing.
 or,
- Watch a tape playing in the VCR.
- * Select the Source in the Source Menu that corresponds to jacks to which the A/V component is connected.

OPTIONAL AUDIO AMPLIFIER/SURROUND SOUND CONNECTIONS TO TV

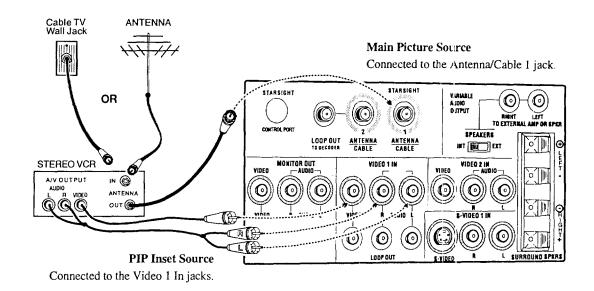
If you wish to listen to the TV audio through an external amplifier or stereo system, or listen to surround sound audio, make the connections to the TV shown in the illustration below.



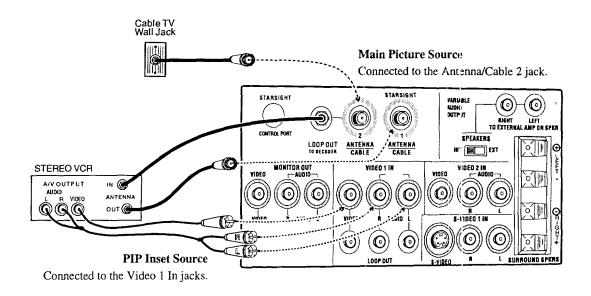
DIFFERENT WAYS TO LISTEN TO YOUR TV TV Speakers On TV Speakers Off Surround Sound SPEAKER EXT/INT switch in the INT SPEAKER EXT/INT switch in the EXT Connect surround sound speakers as shown. (internal) position -(external) position -The level of surround sound will vary, TV speakers are ON. Sound is heard from TV speakers are OFF. Sound is only heard depending or the program being viewed. both the TV's speakers and the external from the speakers connected to the external Note that not all programs have surround amplifier's speakers. amplifier. sound audio. Use TV's volume control to raise and Use TV's volume control to raise and The SURROUND SPKR terminals are lower the level of sound being heard from lower the level of sound being heard from always active. The SPEAKERS EXT/INT both sets of speakers. the amplifier's speakers. switch does not affect the operation of surround sound speakers.

CONNECTIONS FOR USING PIP

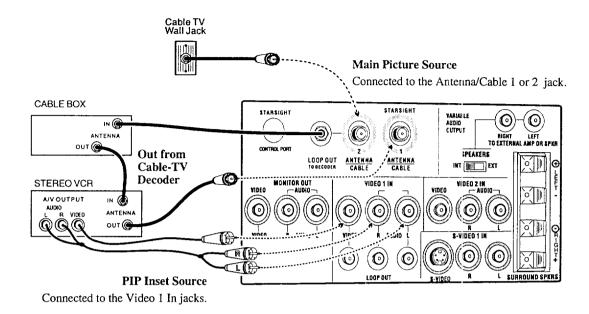
The illustrations that follow show the three most common connections for using Picture-In-Picture (PIP). For further information on the actual use of PIP, refer to the "PIP OPERATION" section of this operating guide.



Option 1: Antenna or Direct Cable Connection To VCR. (Optional cables are not supplied with television.)



Option 2: Direct Cable Connection via Loop Out To VCR. (Optional cables are not supplied with television.)



Option 3: Cable-TV Decoder Connection via Loop Out To VCR. (Optional cables are not supplied with television.)

SCREEN PROTECTOR (Some Models)

Some TVs are equipped with a pre-installed Screen Protector. If it should be necessary to remove or adjust the protector, "peel" the extrusions away from the TV to separate the two-part Velcro fastener, being careful not to damage or pull away the adhesive backing strips from the Screen Frame.

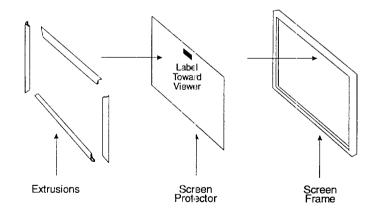
To Clean the TV Screen (Under the protector)

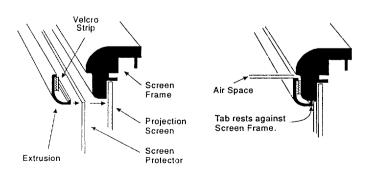
Use a soft cloth moistened with warm water and rub lightly in the soiled areas of the projection screen. DO NOT USE A TISSUE OR PAPER TOWEL AS THESE MAY DAM-AGE THE SCREEN SURFACE.

Wipe only in a vertical, up and down direction (along the grooves in the screen). If there is a dirt buildup, a mild solution of warm water and Ivory dish washing detergent may be used. Use a dry soft cloth to dry the Projection Screen and Screen Protector. Care should be taken to avoid scratches or damage to the screen surface.

NOTE:

 The TV screen is easily damaged. Avoid accidental contact with the screen.





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THE FIRST TIME YOU OPERATE YOUR TV

TYPICAL CONTROL PANEL

The control panel on your TV may differ from the one shown but its operation is the same.

SELECT (SEL)

Press during on-screen menu operations to select a menu option.

ENTER (ENT)

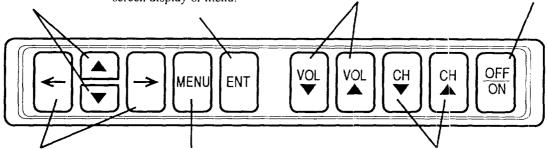
Press to see the Channel/Time display, or to remove any onscreen display or menu.

VOLUME (VOL) Up/Down

Press to increase or decrease the sound level.

OFF-ON

Press to turn TV power ON or OFF.



ADJUST (ADJ) Left/Right

Press during on-screen menu operation to see information/status display for selected option. Press again to adjust the selected menu option.

MENU

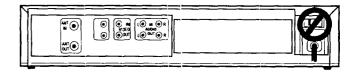
Press once to see a menu. Press repeatedly to sequence through the available menus.

CHANNEL (CH) Up/Down

Press to select channels higher or lower than the current channel. To add or delete channels stored in the scanning sequence, see CH. ADD/DEL option.

STEP 1. CONNECT THE POWER

- 1. Plug your TV into an unswitched AC power source.
- 2. Turn the TV on by pressing OFF-ON.



Do not plug TV into switched outlet on a VCR or cable-TV decoder

STEP 2. SELECT YOUR MAIN VIEWING SOURCE

A TV source refers to the equipment connected to the TV that supplies the picture and sound to your TV. You select the viewing source by using the SOURCE MENU.

To view the Source Menu

- 1. Press SOURCE to display the Source Menu.
- 2. Press the Left or Right arrow keys to select Main Source column.
- 3. Press the Up or Down arrow keys to select the source which corresponds to the jack on the connection panel that is receiving the input signal.
- 4. Press QUIT to remove the menu.

Ant/Cable 1 Ant/Cable 2 Video 1 Video 2 S-Video 1 Ant/Cable 1 Ant/Cable 1 Video 1 Video 2 S-Video 1 S-Video 1

↑↓ To Select Source

Source Menu with Main Source column highlighted and ANT/CABLE 1 as the selected source. Connection must made to ANT/ CABLE 1 jack on connection panel.

Main/PIP

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THE FIRST TIME YOU OPERATE YOUR TV

STEP 3. USE AUTO PROGRAM

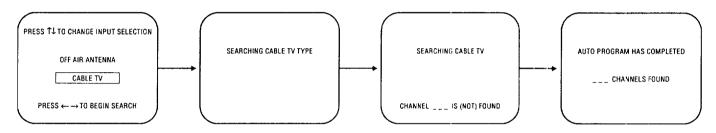
When your TV is first powered up, Auto Program will be selected in the Setup Menu. Auto Program finds all available channels on the currently selected source and stores them in the memory of the TV.

To start the Auto Program procedure, press the Left or Right arrow key. Follow the instructions on the TV.

Auto Program
Ch. Add/Del
Ch. Labels
Source ID
Clock Set
Timer Setup
Parental Ctl
Caption/Text
Background

Press **◄▶** To Program

Setup Menu with Auto Program Highlighted



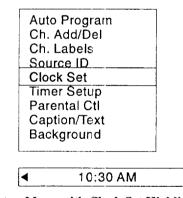
Press ↑↓ to select either OFF AIR ANTENNA or CABLE TV.

2 Press $\leftarrow \rightarrow$ to begin channel search.

Wait a few seconds for the TV screen to clear.

STEP 4. SET THE CLOCK

- 1. Press MENU on your remote until the SETUP ICON is selected, displaying the Setup Menu.
- 2. Press the Up or Down arrow key to select Clock Set.
- 3. Use the numbered buttons on the remote control to enter the correct time and press the TIMER button to select AM or PM. You can also use the Left or Right keys to advance the clock.
- 4. Press ENTER to start the clock and remove the menu.



Setup Menu with Clock Set Highlighted

STEP 5. USE OTHER OPTIONS

You may want to consider using the following options:

- Delete undesirable channels or add additional channels: Refer to the Ch. (Channel) Add/Del option for details.
- Adjust options in the Audio and Video Menus.
- Label channels (such as ABC) that appear in the Channel/ Time display: Refer to the Ch. (Channel) Labels option for details.
- Use the Parental Control feature to block the viewing of undesirable channels: Refer to the Parental Ctl. option for details.

INTRODUCTION

This multi-brand remote control operates the common features of most, but not all, models and brands of IR (infrared) controlled TVs, VCRs, cable converters, video disc players, and audio equipment. The remote may provide functions that are not

available on your equipment, e.g., menu operations. Some functions of your particular equipment may not be controlled by this remote. In such cases, use the original remote control for your equipment.

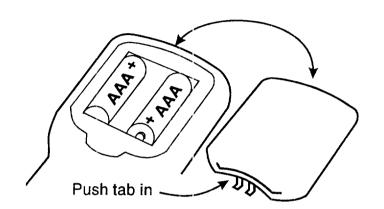
BATTERY INSTALLATION

Batteries are provided, but they must be installed before using the remote control. When it no longer functions normally, or when it loses memory, replace the batteries with two high-quality, alkaline, size AAA batteries. Match plus with plus (+ with +), minus with minus (- with -), as shown in the battery compartment.

Unless your equipment responds to the factory preset codes commonly used for Zenith products, i.e., 101 for TV, 201 for VCR, 353 for CABLE, and 401 for AUX., you will need to program the remote control with the codes for your particular equipment.

NOTES:

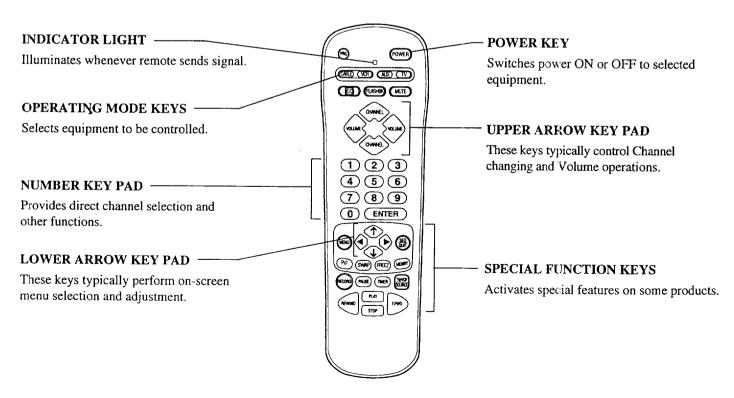
- Do not to place heavy objects on top of the remote control keys. Prolonged unintentional operation of the remote shortens battery life.
- Remove the batteries if the remote control will not be used for a month or more. Battery leakage can permanently damage the remote, for which Zenith is not responsible.



CHOOSING OPERATING MODE

To control your TV, VCR, cable box, or auxiliary equipment with this remote, you must first choose the mode of operation. Press the desired mode key for TV, VCR, CABLE or AUX.

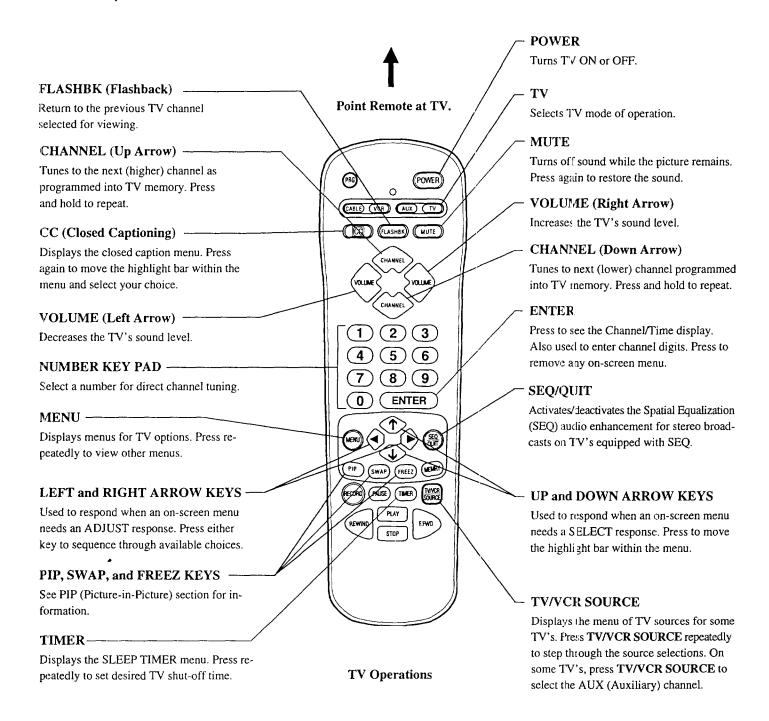
Some keys on the remote will always operate a particular product function. For example, **VOLUME** controls the TV sound level, and **PLAY** controls the VCR play function.



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TV OPERATIONS

These descriptions apply to functions and operations of your TV. First, press the TV button on the remote control to select the TV mode of operation.



NOTE: Keys dedicated to VCR functions may be used to operate your VCR while the remote is in TV mode.

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OPERATIONAL MODES FOR ZENITH PRODUCTS USING FACTORY PRESET CODES

Pushbutton	TV Mode	VCR Mode	Cable Mode	AUX Mode
or Key Label	Zenith Code 101	Zenith Code 201	Zenith Code 353	Zenith Code 401
POWER	TV Power On/Off	VCR Power On/Off	Cable Power On/Off	AUX Power On/Off
CABLE	Selects Cable Mode	Selects Cable Mode	Selects Cable Mode	Selects Cable Mode
VCR	Selects VCR Mode	Selects VCR Mode	Selects VCR Mode	Selects VCR Mode
AUX	Selects AUX Mode	Selects AUX Mode	Selects AUX Mode	Selects AUX Mode
TV	Selects TV Mode	Selects TV Mode	Selects TV Mode	Selects TV Mode
CC	TV Closed Captions	VCR AM/PM	CABLE FC (Favorite Ch.)	AUX Audio
FLASHBK	TV Flashback	VCR Flashback	CABLE Flashback	AUX Frame/Time
MUTE	TV Mute	TV Mute	TV Mute (See Note 1)	TV Mute
CHANNEL UP	TV Channel Up	VCR Channel Up	CABLE Channel Up	AUX Skip >>
CHANNEL DN	TV Channel Dn	VCR Channel Dn	CABLE Channel Dn	AUX Skip <<
VOLUME RIGHT	TV Volume Up	TV Volume Up	TV Volume Up (See Note 1)	TV Volume Up
VOLUME LEFT	TV Volume Dn	TV Volume Dn	TV Volume Dn (See Note 1)	TV Volume Dn
1	TV Digit 1	VCR Digit 1	CABLE Digit 1	AUX Digit 1
2	TV Digit 2	VCR Digit 2	CABLE Digit 2	AUX Digit 2
3	TV Digit 3	VCR Digit 3	CABLE Digit 3	AUX Digit 3
4	TV Digit 4	VCR Digit 4	CABLE Digit 4	AUX Digit 4
5	TV Digit 5	VCR Digit 5	CABLE Digit 5	AUX Digit 5
6	TV Digit 6	VCR Digit 6	CABLE Digit 6	AUX Digit 6
7	TV Digit 7	VCR Digit 7	CABLE Digit 7	AUX Digit 7
8	TV Digit 8	VCR Digit 8	CABLE Digit 8	AUX Digit 8
9	TV Digit 9	VCR Digit 9	CABLE Digit 9	AUX Digit 9
0	TV Digit 0	VCR Digit 0	CABLE Digit 0	AUX Digit 0
ENTER	TV Enter	VCR Enter	CABLE Enter	AUX Display
MENU	TV Menu	VCR Menu	CABLE Menu	AUX Program
UP ARROW	TV Select Up	VCR Select Up	CABLE Up Arrow	AUX Part
DOWN ARROW	TV Select Dn	VCR Select Dn	CABLE Down Arrow	AUX Random
LEFT ARROW	TV Adjust Left	VCR Adjust Left	CABLE Left Arrow	AUX x3 FAST <
RIGHT ARROW	TV Adjust Right	VCR Adjust Right	CABLE Right Arrow	AUX x3 FAST >
SEQ/QUIT	TV SEQ Sound	VCR Quit	CABLE Quit	AUX Clear
PIP/A	TV PIP	VCR VCR+	CABLE Day Up	AUX Repeat-Side
SWAP/B	TV PIP Swap	VCR Channel Map	CABLE Day Down	AUX Repeat-A-B
FREEZ/C	TV PIP Freeze	VCR Search	CABLE Pg Up/★	AUX Repeat-Chap
MEMRY/D	No Function	VCR Memory	CABLE Pg Dn/#	AUX Memory
TIMER	TV Timer	VCR Timer	CABLE Timer	AUX Still
TV/VCR/SOURCE	TV Source	VCR TV/VCR Tuner	CABLE Info	AUX Tv/Disc
RECORD	VCR Record	VCR Record	CABLE Buy	AUX Edit
PAUSE	VCR Pause	VCR Pause	CABLE Guide	AUX Pause
REWIND	VCR Rewind	VCR Rewind	VCR Rewind	AUX Scan <<
PLAY	VCR Play	VCR Play	VCR Play	AUX Play
STOP	VCR Stop	VCR Stop	VCR Stop	AUX Stop/Eject
FFWD	VCR Fast Forward	VCR Fast Forward	VCR Fast Forward	AUX Scan >>

NOTES: Reference: 124-212-03 and

1. Can be overwritten with Cable Vol/ Mute when 399 is entered.

μP 221-952A

PROGRAMMING YOUR REMOTE

If you are using Zenith products, the remote is programmed for the most commonly used codes. For other brands — or if your remote fails to control your Zenith products — you will have to program the remote.

Follow these steps for each product you are using:

- 1. Look up the three-digit code for your brand (such as Zenith) and type of equipment (such as VCR) in the code table provided.
- 2. Press and hold PRG with a small blunt object until the indicator lights (about three seconds).
- 3. Press TV, VCR, CABLE, or AUX to select the product you want your remote to control. (Use CABLE or AUX, to program your remote for a second TV or VCR. Use AUX, to program your remote for a video disc player or audio equipment.)
- 4. Key in the three-digit code for your equipment, then press ENTER. The indicator light should flash, then turn off to indicate that the code was accepted. If the indicator stays on, repeat steps 3 and 4 or try using a different code.
- 5. Write the code that operates your equipment, on the label inside the battery compartment for future reference.

To erase all code programming and return to the factory preset codes, key in code 911 when programming the remote.

NOTES:

- If no key on your remote is pressed within 60 seconds, the programming process stops, and you will have to start again.
- You may cancel programming at any time by pressing PRG.

SPECIAL FEATURES

AUX+1, AUX+2 and AUX+3 Capability

Your remote can control up to seven electronic components. If you have programmed the remote for four components using the **TV**, **VCR**, **CABLE** and **AUX** keys, you may also program it for up to three additional components (**AUX+1**, **AUX+2**, **AUX+3**) by **HOLDING** the **AUX** key and pressing the **1**, **2** or **3** key during programming. Once programmed, **HOLD** down the **AUX** key and press **1**, **2** or **3**, to access the additional **AUX+1**, **2** or **3** mode.

Cable/Converter Volume (Code 399)

You may use your remote to control cable/converter volume and muting if available on your equipment. First program your remote with the brand code for your cable device using the CABLE or AUX key. Then repeat the programming steps, again using the CABLE or AUX key, but key in code 399 instead of a brand code.

To restore TV volume/mute to the CABLE or AUX mode, simply re-enter your cable converter code number into that mode.

Amplifier Volume Override (Code 499)

You may use your remote to override your TV, VCR or video disk player's volume functions with your amplifier's volume and muting. First, program your remote with the brand code for the component for which you want amplifier volume override, using the key for that product: TV, VCR or AUX. Then, program your remote with the brand code for your amplifier. Finally, repeat the programming steps, using the key for the component you wish to control (TV, VCR, or AUX), but key in code 499 instead of a brand code.

To restore normal volume and muting control to your TV, program any code into the mode where the audio amplifier code is programmed.

NOTE:

CD and tape players will automatically select amplifier volume and mute.

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AUTO FIND OPTION

If you have tried all the codes listed for your brand and type of product in the code table, and none of those codes operate your equipment, you can use Auto Find to search for the code you need.

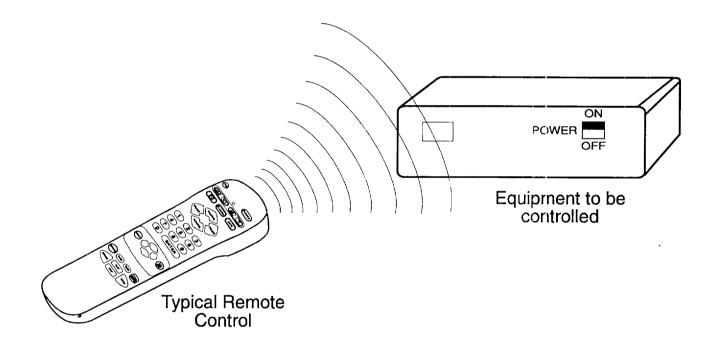
Follow these steps for each product you are using:

- 1. Turn the product ON and aim the remote toward it.
- 2. Press and hold PRG with a small blunt object until the indicator lights (about three seconds).
- 3. Press the mode key on the remote for the product you want to control: TV, VCR, CABLE, or AUX.
- 4. Key in "000", then press ENTER within two seconds. When the indicator light flashes three times and remains lit, Auto Find is active.

- 5. Press and hold POWER, then release it, repeating this action about once a second until the product turns OFF.
- 6. Press ENTER immediately to save the code. If your remote fails to operate the functions you use most often, you can re-enter Auto Find and search for a better code.

NOTES:

- The indicator light should flash OFF when you press
 POWER and back ON when you release it. If the indicator
 light stays on when you press POWER, Auto Find has tried
 all available codes. If you finish Auto Find and the product
 you want to control has not turned off, your remote cannot
 control that product.
- Pressing PRG at any time during the use of Auto Find will cancel Auto Find, and you will have to start again.



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OPERATING CODES BY BRAND NAME

TV	'c
	3
Admiral	116, 121, 130, 133
Adventura TV/VCR	154
Akai	104
Amark	103, 146
AOC	[04
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General Electric	106, 107, 114, 116, 117, 161
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Goldstar TV/VCR	153
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JVC	125, 132, 164
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Philips	112, 113
Pioneer	135
Portland	103

ProScan	116, 157, 162, 167
Quasar	106, 107
RCA	104, 116, 126, 157, 161,162,167,168
Realistic	105, 123, 124
Sampo	119
Samsung	103, 119, 134, 141
Sanyo	108, 109, 118
Scott	119, 124
Sears	103, 108, 109,110, 111, 118, 134
Sharp	103, 105, 122, 133, 137, 156, 169
Signature 2000	103, 104, 105, 113, 114, 119, 121, 130, 133
Sony	115, 143, 151, 170
Soundesign	139
Sylvania	112, 113, 117, 119, 127, 128, 139
Symphonic TV/VCR	154
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Teknika	103, 112, 121, 124, 139
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		_

AUDIO TUNERS AND AMPLIFIERS

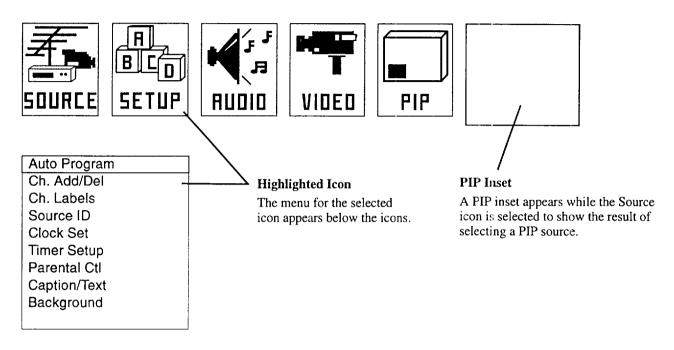
Denon	462, 463
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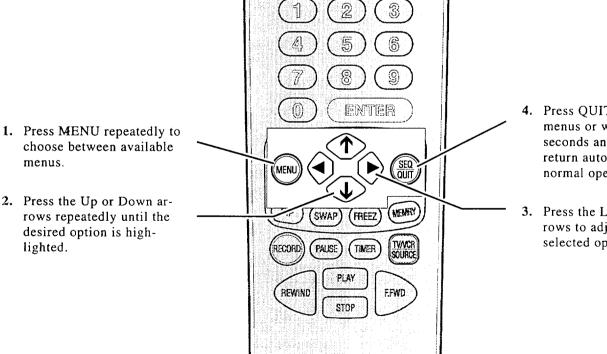
QUICK REFERENCE TO MENUS

AVAILABLE MENUS

Your TV is icon and menu operated. In other words, an icon is selected at the top of the TV screen and a menu of adjustment options appears.



BASIC MENU OPERATION



- 4. Press QUIT to remove menus or wait a few seconds and the TV will return automatically to normal operation.
- 3. Press the Left or Right arrows to adjust or change a selected option.

Typical Remote Control

SOURCE MENU



Main Source

PIP Source

Ant/Cable 1 Ant/Cable 2 Video 1 Video 2 S-Video 1

Ant/Cable 1
Video 1
Video 2
S-Video 1

Main/PIP ↑↓ To Select Source

CH 2 10:56 STEREC VIDEO 1 10:56

Channel/Time Display for Ant/Cable Source Shows Channel Number

Channel/Time Display for A/V Source Shows VIDEO 1 or VIDEO 2

MENU OPERATION



Press SOURCE for direct entry to the **Source Menu**, or press MENU repeatedly until the Source Menu is selected.



Press the Up/Down keys to choose the desired input source.





Press the Left/Right keys to select either Main Source column or PIP Source column.





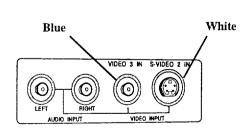
Press QUIT or wait a few seconds for the TV to return to normal operation.

SOURCE SELECTION

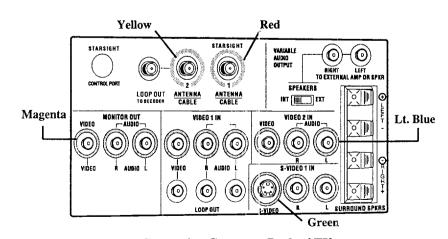
ANT/CABLE 1 or 2	Routes the antenna or cable-TV source to the TV for viewing. You see program material from whichever signal source is connected to the ANT/CABLE 1 or 2 jack. (If the signal is from a VCR or a cable box, tune the TV to either channel 3 or 4.)
VIDEO 1, 2 or 3	Routes the audio and video from an A/V source (such as a VCR or a video disc player) to the TV for viewing. The source must be connected to the corresponding VIDEO 1, 2 or 3 IN jacks.
S-VIDEO 1 or 2	Routes the audio and video from an auxiliary Super-VHS video source (such as a VCR or a video disc player) to the TV for viewing. The source must be connected to the corresponding S-VIDEO 1 or 2 IN jacks.

Refer to the "Standard Connections for Your TV" section to make the proper equipment connections to the TV. For information about PIP sources, refer to the "PIP Operation" section.

SOURCE IDENTIFICATION



Auxiliary A/V Jacks (Some TV Models)



Connection Center on Back of TV



Auto Program
Ch. Add/Del
Ch. Labels
Source ID
Clock Set
Timer Setup
Parental Ctl
Caption/Text
Background

Press **♦▶** To Program

Source ID

Clock Set
Timer Setup
Parental Ctl
Caption/Text
Background

Press **◄▶** To Label Sources

While a Video or Super-Video Source is Chosen

MENU OPERATION





Press MENU repeatedly until the SETUP MENU is shown.





Press the Left/Right keys to adjust the selected option.





Press the Up/Down keys until the desired option is either highlighted or selected.





Press QUIT or wait a few seconds for the TV to return to normal operation.

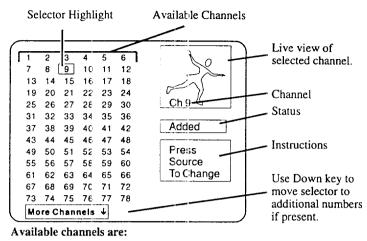
Auto Program	Finds all active channels and stores them in the TV's memory for use by CHANNEL up/down. See "THE FIRST TIME YOU OPERATE YOUR TV" for more details.	
Ch. (Channel) Add/Del	Edits the channels found by Auto Program to create your own personal list of favorite channels. See the information following this chart for more details.	
Ch. (Channel) Labels	Assigns a network/station label, name or call letters to specified channels. For example, if you choose the label "ABC" for channel 9, then "ABC" will appear in the Channel/Time display whenever channel 9 is selected. See the information following this chart for more details.	
Source ID	Assigns a descriptive "name" to the input sources. For example, the Video 1 source may be named VCR. "VCR" will now appear in the Source Menu as a reminder that your VCR is connected to the Video 1 input jacks.	
Clock Set	Sets the clock in the TV to the correct time. Press the Left/Right keys to advance the 24-hour clock, or use numbered buttons on the remote to enter time. Press ENTER to start the clock.	
Timer Setup	Sets the TV's Sleep Timer and On/Off Timer features. See the information following this chart for more details.	
Parental Ctl. (Control)	Use this feature to block viewing of any undesirable channels or an entire input video source. See the information following this chart for more details.	
Caption/Text	Displays closed captioning or informational text when available on the selected channel. Options are: OFF, CAPTION 1, CAPTION 2, CAPTION 3, CAPTION 4, TEXT 1, TEXT 2, TEXT 3, or TEXT 4. See the information following this chart for more details.	
Background	Adds or removes a solid-color background behind the on-screen menus.	

USING CH. (CHANNEL) ADD/DEL

Add Channels to Scan	Delete Channels from Scan
Press the Up/Down keys to	Press the Up/Down keys to
select Ch. Add/Delete.	select Ch. Add/Delete.
Press Left/Right keys to view	Press Left/Right keys to view
the add/delete screen.	the add/delete screen.
Use the Left/Right and Up/ Down keys to move selector to the channel being added.	Use the Left/Right and Up/ Down keys to move selector to the channel being deleted.
Add the channel by pressing	Delete the channel by
SOURCE until the display	pressing SOURCE until the
shows Added.	display shows Deleted.

NOTE:

- Ch. Add/Del can only be used with ANT/CABLE 1 or 2 Source selection.
- The audio of deleted channels is muted.



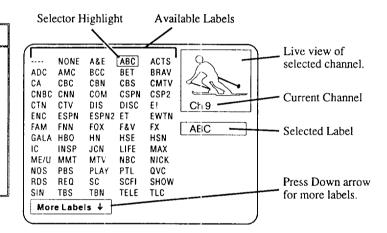
Broadcast Band — VHF 2 to 13, UHF 14 to 83 CATV, HRC and ICC Bands — 1 to 139

USING CHANNEL LABELS

Assign Labels	Remove/Prevent Labels
 Press the Up/Down keys to	Press the Up/Down keys to
select Ch.Labels.	select Ch.Labels.
Press Left/Right keys to view	Press Left/Right keys to view
the Channel Label screen.	the Channel Label screen.
 Select a channel by pressing	Select a channel by pressing
the CHANNEL Up/Down	the CHANNEL Up/Down
keys.	keys.
Use the Left/Right and Up/	Use the Left/Right and Up/
Down keys to move selector	Down keys to move selector
to the desired label.	to the four dashes or NONE.

NOTE:

Selecting the four dashes (----) specifies that no channel label is assigned. Or, in addition to not assigning a label, NONE blocks the station or network labels that are transmitted by some television stations.



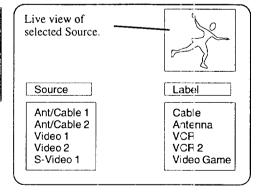
USING SOURCE ID

Assign Names To Your Sources

- In the Setup Menu, press the Up/Down keys to select Source ID.
- Press the Left/Right keys to view the Source ID screen.
- Press the Up/Down keys to choose a Source.
- Press the Left/Right keys to Label the chosen Source.

VIDEO GAMES AND OTHER FIXED PATTERN DISPLAY CAUTION

If you use your TV for video games or other fixed displays, avoid setting the BRIGHTNESS control for an excessively bright picture. A bright, fixed pattern, if used for long periods of time, can result in a permanent imprint on the TV picture tube. You can reduce this possibility by alternating the use of the fixed pattern display with normal TV picture viewing, by turning down the CONTRAST control for sustained fixed pattern use, and by turning off the fixed pattern display when not in use.



NOTE:

• Disabling a Source prevents it from appearing in the Source Menu.

Optional names for ANT/CABLE 1 or 2 Sources are:

----, Disabled, Antenna, Cable, Cable Box, Satellite, VCR, StarSight (Ant/ Cable 1 only).

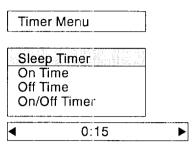
Optional names for VIDEO Sources are:

----, Disabled, VCR, VCR2 Camcorder, Video Game, Laser Disc, Audio Only. Satellite.

TIMER SETUP: Sleep Timer

The Sleep Timerallows you to program the TV to automatically turn itself off after a period from 15 minutes up to 4 hours. Before the Timer Menu can be used, you must set the time on the TV. See "THE FIRST TIME YOU OPERATE YOUR TV" section of the operating guide.

SET SLEEP TIMER		
From Setup Menu	Direct Access	
 Press the Up/Down keys to select Timer Setup and view the Timer Menu. 	With no menus showing on the TV, press TIMER on your remote to directly access the Sleep Timer.	
 Press the Up/Down keys to select Sleep Timer. 	Press TIMER repeately to set the period of time the TV will remain on.	
• Use the Left/Right keys to set the period of time the TV will remain on.		
 One minute before the TV turns off, the GOOD NIGHT display appears on the screen. At this time you have a choice of the following two actions. 		
Do nothing. The GOOD NIGHT display remains on the screen. The TV will turn off in one minute.		
• Delay the turn-off by resetting the timer with a new time period.		



Timer Set to Turn TV OFF in 15 Minutes

Sleep Timer Good Night 0:58

"Good Night" Display Appears 60 Seconds Before Shut-Off

NOTES:

- To cancel the Sleep Timer, turn off the TV or return to the Timer Menu and set it to OFF.
- As the Good Night display counts down the final 60 seconds, the audio and video of the TV also "dim" for a soft, discreet turn-off.

TIMER SETUP: On/Off Timer

The **On/Off Timer** allows you to program the TV to automatically turn itself on at a specific time then turn itself off at another time. Before the Timer Menu can be used, you must set the time on the TV. See "THE FIRST TIME YOU OPERATE YOUR TV" section of the operating guide.

Set On/Off Timer

- Press the Up/Down keys to select Timer Setup
- Press Up/ Down keys to select On Time. and use the numbered buttons on your remote to enter a time for the TV to turn itself ON. Press TIMER on the remote to select AM or PM. (You can also use the Left/Right keys to advance the time.)
- Press Up/ Down keys to select Off Time and use the numbered buttons on your remote to enter a time for the TV to turn itself OFF. Press TIMER on the remote to select AM or PM. (You can also use the Left/Right keys to advance the time.)
- Press Up/ Down keys to select On/Off Timer and use ADJUST on remote to turn timer ON (or OFF).

Timer Menu Sleep Timer On Time Off Time On/Off Timer

On/Off Timer Set to Turn TV ON at 11:00 am

NOTE

• A time must be set for either On Time or Off Time in order to turn the timer ON.

USING PARENTAL CONTROL (PC)

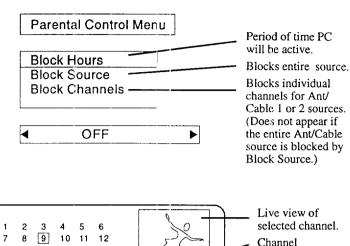
Block Entire Source	Block Individual Channels
Press the Up/Down keys to select Parental Ctl.	Press the Up/Down keys to select Parental Ctl.
Press Left/Right keys to view the PC Menu.	Press Left/Right keys to view the PC Menu.
• Select Block Hours and use Left/Right keys to set the length of time PC will be active: OFF, 12, 24, 48 or 72 hours.	Select Block Hours and use Left/Right keys to set the length of time PC will be active: OFF, 12, 24, 48 or 72 hours.
Select Block Source and use Left/Right keys to completely Block the current input source.	Select Block Channels and use Left/Right and Up/Down keys to select channels.
To block another source, press SOURCE key and set them to Block.	Press SOURCE to set channels to Block or Unblock.
 Press ENTER twice to exit PC a when prompted to do so. 	and enter any 4-number password

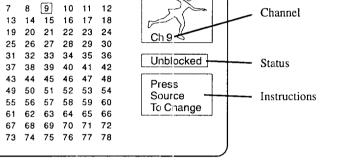
REMEMBER THIS NUMBER! TO RE-ACCESS
PARENTAL CONTROL WHILE IT IS ACTIVATED, YOU
MUST ENTED THIS NUMBER. Otherwise simply allow the

MUST ENTER THIS NUMBER. Otherwise, simply allow the specified period of time to elapse.

NOTE:

- Do not unplug the TV in an attempt to deactivate the Parental Control. This only resets Parental Control.
- If you re-access Parental Control while it is activated to block additional channels or sources, or to reset the time period, upon exiting you will be prompted to change the password. Either press ENTER to accept the current password or enter a new 4-number password.



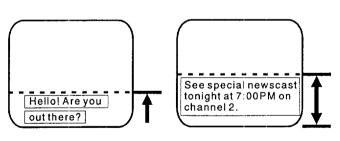


USING CAPTIONS

Activating Captions (With CC Button)	Activating Captions (From Setup Menu)
Press CC button on remote.	Press the Up/Down keys to select Caption/Text.
Press CC repeatedly to toggle through the five choices: Off, Caption 1, Caption 2, Caption 3 And Caption 4.	Press Left/Right keys to toggle through the nine choices: Off, Caption 1, Caption 2, Caption 3, Caption 4, Text 1, Text 2, Text 3, Or Text 4.

NOTE:

At present, very few TV programs or video tapes offer text captioning for any option other than CAPTION 1. Therefore, CAPTION 1 is the only recommended choice, unless you know that a specific program is providing captioning using one of the other selections.



Typical Captions Display

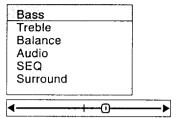
Captions may be shown anywhere on the screen.

Typical Text Display

Fixed size text window fills lower half of screen.

AUDIO MENU





CH 2 10:56 STEREO

STEREO is selected and a stereo signal is being received. You will hear stereo sound.

Audio Mode Shown in Channel/Time Display

MENU OPERATION





Press MENU repeatedly until the AUDIO MENU is shown.





Press the Left/Right keys to adjust the selected option.





Press the Up/Down keys until the desired option is either highlighted or selected.





Press QUIT or wait a few seconds for the TV to return to normal operation.

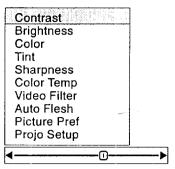
Bass	Adjusts the BASS (low-frequency) level.		
Treble	Adjusts the TREBLE (high-frequency) level.		
Balance		ce of sound between the two speakers.	
Audio (SAP is not an option for the video sources. Audio signals received from a video source are	Allows you to sel for more details. STEREO:	Directs the sound to the Left and Right speakers as supplied by the program. Stereo is the recommend choice: The TV switches automatically between the STEREO and MONO modes depending on the type of signal being received.	
assumed to be monaural or stereo.)	MONO:	Directs the same sound to both Left and Right speakers, even if the program being received is in stereo.	
•	2ND AUDIO/ SAP:	Directs the sound for the Second Audio Program (second language) to both the Left and Right speakers. SAP sound is always monaural. If SAP is selected, you hear the SAP (usually a second language). When the SAP broadcast ends, the TV switches automatically (defaults) to the type of signal being received, STEREO or MONO. The TV switches back to 2ND AUDIO/SAP when the SAP broadcast resumes.	
SEQ (Spatial Equalization)	Produces a spacious and more tonal sound. SEQ is only available while a stereo signal is being received and processed by the TV.		
Surround	Adjusts the level of Surround Sound provided to the optional surround sound speakers. Surround Sound is only available if a surround encoded stereo signal is being received and STEREO is either selected using the AUDIO option or selected by default.		
Null (Some Models Only)	Used to Minimize front channel sound from coming through the surround speakers. To adjust the Null, while watching a Dolby Surround video tape, select Null and use the Left/Right keys to remove any dialogue that may be heard from the surround speakers.		

NOTE:

 All adjustments on the AUDIO MENU are optional. You do not have to use these features in order to use your TV.

VIDEO MENU





MENU OPERATION





Press MENU repeatedly until the AUDIO MENU is shown.



Press the Left/Right keys to adjust the selected option.





Press the Up/Down keys until the desired option is either highlighted or selected.





Press QUIT or wait a few seconds for the TV to return to normal operation.

Contrast	Adjusts the overall contrast and color level of the picture.
Brightness	Adjusts the brightness level of black areas in the picture.
Color	Adjusts the intensity of the colors in the picture.
Tint	Adjusts the color of the flesh tones.
Sharpness	Adjusts the clarity of the edges around objects for the clearest picture quality.
Color Temp (Temperature)	Changes the "color temperature" or picture white balance between cooler natural whites and warmer (red) colors.
Video Filter	Reduces video "noise" or interference in dark picture areas resulting in clearer overall pictures.
Auto Flesh	Automatically maintains natural skin tones under changing scene and video source conditions.
Picture Pref. (Preference)	Lets you decide if you want to use your own CUSTOM video settings, the factory PRESET video settings or the factory preset THEATER video settings. The THEATER settings are preset to provide optimum visual performance in low light "theater-like" conditions
Projo Setup	Lets you verify and adjust, if needed, the dynamic color convergence of the TV picture. See the information following this chart for more details.

continued on next page

VIDEO MENU

PROJO SETUP

If you move your TV from its original location, or if after time, you notice color "fringes" around objects in the picture, you may want to realign the colors by adjusting the convergence as described in the following steps.

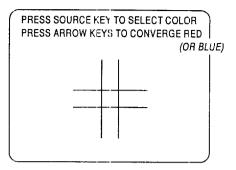
Converge Colors

- Press the Up/Down keys to select Projo Setup.
- Press the Left/Right keys to view the "Converge" lines.
- Press Source key to select either RED or Blue lines to converge.
- Press the Up/Down and Left/Right arrow keys to place the color lines directly on top of the white lines. (Do this for both colors of necessary.)

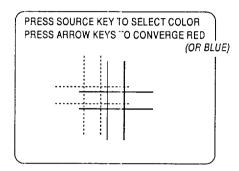
NOTES:

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- Any adjustments made to the Video Menu settings while Picture Pref. is in PRESET mode will automatically store the current settings as the CUSTOM setting.
- Each time the TV is moved to a different location, the convergence should be checked.



Four intersecting WHITE lines indicate properly converged television: No adjustment is necessary.



Four RED (or Blue) lines offset from the WHITE lines indicate converging is necessary. Follow the steps to align the color lines with the white lines.

PIP MENU



PIP Color PIP Tint PIP Size

Press **◄▶** To View

NOTE: Selecting the PIP Menu does not "activate" PIP. However, a PIP inser will appear during menu operation to show the effect of any setting changes.

MENU OPERATION





Press MENU repeatedly until the PIP MENU is shown.



Press the Left/Right keys to adjust the selected option.





Press the Up/Down keys until the desired option is either highlighted or selected.





Press QUIT or wait a few seconds for the TV to return to normal operation.

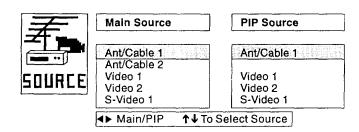
PIP Color	Adjusts the intensity of the colors in the PIP inset.
PIP Tint	Adjusts the color of the flesh tones in the PIP inset, where G is Green and R is Red.
PIP Size	Adjusts the size of the PIP inset. Choose between small or large.

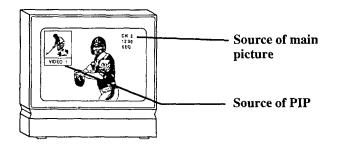
INTRODUCTION

Your TV must be connected to two separate sources in order to view a different picture in the PIP inset from that which is showing in the main picture area of the TV. One source (such as an antenna) must be connected to the ANT/ CABLE 1 or 2 jack. The other source (such as a VCR) must be connected to the VIDEO 1 or 2 jacks.

The most common use of PIP is to view two different channels; one from the channel selector of the TV and the other from the channel selector of the VCR. For example, you can view two sporting events or two movies at the same time.

SELECTING MAIN PICTURE AND PIP INSET SOURCES





Select Main Picture Source	Select PIP Picture Source			
Select TV mode of operation on the remote.	Select TV mode of operation on the remote.			
Press SOURCE on the re-	Press SOURCE on the remote			
mote control to immediately	control to immediately view			
view the Source Menu.	the Source Menu.			
Press the Left/Right keys to	Press the Left/Right keys to			
select Main Source column.	select PIP Source column.			
 Press the Up/Down keys to	Press the Up/Down keys to			
choose the desired input	choose the desired input			
source.	source.			
 Press QUIT or wait a few sec-	 Press QUIT or wait a few			
onds for the TV to return to	seconds for the TV to return			

to normal operation.

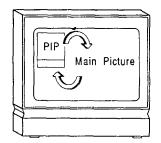
PICTURE-IN-PICTURE FUNCTIONS

PIP

Press the PIP key to display the PIP inset. Press it again to remove the PIP inset.

Moving the PIP Inset

Use the Left/Right and Up/Down arrow keys to move the PIP inset to the desired corner of the TV screen.



SWAP

Press SWAP to swap the main picture with the PIP inset. Press SWAP again to return to the original display.

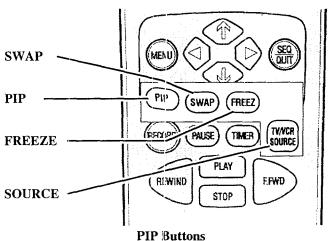
PIP Size

normal operation.

Select PIP Size in the PIP Menu to choose between seeing a small or large PIP inset.

FREEZE

Press FREEZE to freeze motion of the picture shown in the PIP inset. Press FREEZE again to return to a live PIP inset.



(Typical Remote Control; your remote may differ from unit shown.)

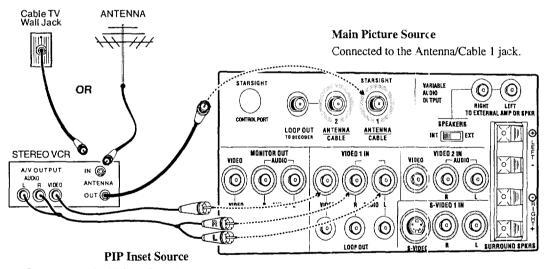
OPERATION WITH ANTENNA OR DIRECT CABLE

This illustration shows the basic connection of your TV to a stereo VCR. With your equipment setup in this manner, your television has the following PIP capabilities:

- Simultaneously view a video tape playing in the VCR and a channel selected by the TV's tuner.
- Simultaneously view two different channels; one selected by the TV's tuner and another using the VCR's tuner.
- Swap the main picture and the PIP inset.

PIP VIEWING OPTIONS						
Viewing Two Different Channels	Viewing a Video Tape and a TV Channel					
Set VCR's TV/VCR* switch to TV.	Set VCR's TV/VCR* switch to TV.					
Select Ant/Cable 1 as the Main Source in the Source Menu.	Select Ant/Cable 1 as the Main Source in the Source Menu.					
Select Video 1 as the PIP Source in the Source Menu.	Select Video 1 as the PIP Source in the Source Menu.					
Select a channel with the TV's channel selector.	Select a channel with the TV's channel selector.					
Press PIP key to activate PIP.	Press PIP key to activate PIP.					
Select a PIP channel using the VCR's channel selector.	 Play a tape in the VCR and view it in the PIP inset. (Make sure VCR's TV/VCR* switch is still set to TV.) 					

* May be labeled TV/Video.



Connected to the Video 1 In jacks.

Option 1: Antenna or Direct Cable Connection To VCR. (Optional cables are not supplied with television.)

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OPERATION WITH DIRECT CABLE VIA LOOP OUT

With your equipment setup in this manner, your television has the following PIP capabilities:

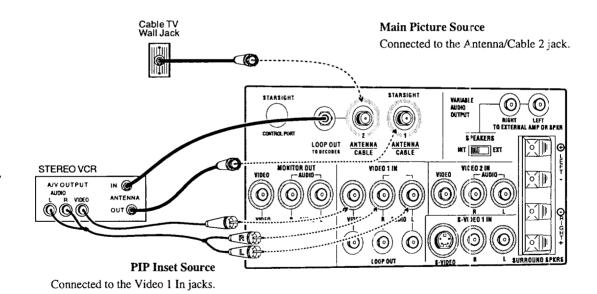
- Simultaneously view a video tape playing in the VCR and a basic cable channel selected by the TV's tuner.
- Simultaneously view two different channels; one basic cable channel selected by the TV's tuner and a second basic cable channel selected by the VCR's tuner.
- · Swap the main picture and the PIP inset.

NOTE:

 The cable channels you can view depends on the service you have purchased from your cable company.

PIP VIEWING OPTIONS						
Viewing Two Different Cable Channels	Viewing a Video Tape and a Cable Channel					
Select Ant/Cable 2 as the Main Source in the Source Menu.	Select Ant/Cable 2 as the Main Source in the Source Menu.					
• Select Video 1 as the PIP Source in the Source Menu.	Select Video 1 as the PIP Source in the Source Menu.					
 Select a channel with the TV's channel selector. 	Select a channel with the TV's channel selector.					
• Press PIP key to activate PIP.	Press PIP key to activate PIP.					
 Set VCR's TV/VCR* switch to TV. 	Set VCR's TV/VCR* switch to TV.					
Select a PIP channel using the tuner in the VCR.	Play a tape in the VCR and view it in the PIP inset. (Make sure VCR's TV/VCR* switch is still set to TV.)					

* May be labeled TV/Video.



Option 2: Direct Cable Connection via Loop Out To VCR. (Optional cables are not supplied with television.)

OPERATION WITH CABLE DECODER

With your equipment setup in this manner, your television has the following PIP capabilities:

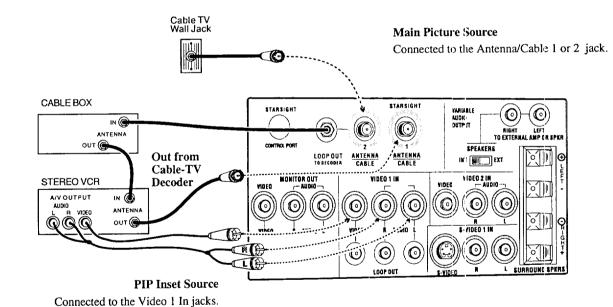
- Simultaneously view a video tape playing in the VCR and a basic cable channel selected by the TV's tuner.
- Simultaneously view two different channels; one basic cable channel selected by the TV's tuner and a scrambled (premium) cable channel selected by the VCR's tuner.
- Swap the main picture and the PIP inset.

NOTE:

 The cable channels you can view depends on the service you have purchased from your cable company.

PIP VIEWING OPTIONS						
Viewing Two Different Cable Channels	Viewing a Video Tape and a Cable Channel					
Select Ant/Cable 2 as the Main Source in the Source Menu.	Select Ant/Cable 2 as the Main Source in the Source Menu.					
Select Video 1 as the PIP Source in the Source Menu.	Select Video 1 as the PIP Source in the Source Menu.					
Select a channel with the TV's channel selector.	Select a channel with the TV's channel selector.					
 Press PIP key to activate PIP. 	Press PIP key to activate PIP.					
Set VCR's TV/VCR* switch to TV.	Set VCR's TV/VCR* switch to TV.					
Select a PIP channel using the tuner in the Cable Box.	Play a tape in the VCR and view it in the PIP inset. (Make sure VCR's TV/VCR* switch isstill set to TV.)					

* May be labeled TV/Video.



Option 3: Cable-TV Decoder Connection via Loop Out To VCR. (Optional cables are not supplied with television.)

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MAINTENANCE AND TROUBLESHOOTING

CARING FOR YOUR PROJECTION TV

Your projection TV will look better, have a longer life and perform better if you care for it properly.



First check to see that the TV is off. For added safety, disconnect AC power to your TV.

NOTE: If you unplug your TV, you will have to reset the clock to the current time.

Cabinet Care

Non-Wood Cabinet or Cabinet Components Moisten a soft cloth with a mild soap solution or Ivory dishwashing detergent. Wipe the surface with a damp cloth. Then rinse the cloth in clean water and wipe the surface again. Allow the TV to airdry before turning it on.

Wood Cabinets or Cabinet Components Use any good furniture cleaner and polish. Regular care will help preserve the finish.

Picture Screen Cleaning

Use a soft cloth moistened with warm water and rub lightly in the soiled areas of the screen. DO NOT USE A TISSUE OR PAPER TOWEL, AS THESE MAY DAMAGE SURFACE. Wipe only in the vertical (up/down) direction (along the grooves). If there is a dirt buildup, a mild solution of warm water and Ivory dishwashing detergent may be used. Use dry soft cloth to dry the screen. Care should be taken to avoid scratches or damage to the screen surface.

NOTE — The TV screen is easily damaged. Avoid accidental contact with the screen.

EXTENDED ABSENCE

Before an extended absence (such as a vacation) you may want to disconnect AC power to your TV. This will protect the projection TV from possible damage from lightning or power line surges. If you have an outdoor antenna, you may also want to disconnect the antenna from the wall plate connection center

NOTE: If you unplug your TV, you will have to reset the clock to the current time.

PICTURE INTERFERENCE

Your picture may be affected by interference caused by one or a number of factors. These include:

Speckled or Streaked Picture Can be caused by nearby automobile ignition, electrical appliances, etc. This is most noticeable in weak signal areas.

Snow in Picture Caused by insufficient signal. Usually caused by the TV being located too far from the TV station or by an improper antenna installation.

Ghosts or Reflections Caused by signals being reflected from surrounding buildings, water tanks, or other high structures.

Radio Signal Police, amateur or CB radio transmitters may cause interference.

These interference problems can often be corrected through the use of a better antenna, signal amplifiers, or various filter devices. See your TV dealer for additional information, and accessories available for your projection TV.

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MAINTENANCE AND TROUBLESHOOTING

BEFORE CALLING FOR SERVICE

Check these items and see if you can correct the trouble by changing the adjustment of a control or the setting of a switch. By making these simple checks before calling for service, you may save time and money.

Problem	Try This
Picture OK. Poor sound.	Re-orient antenna. Try another channel — possible station trouble. Adjust AUDIO MENU options. Check for local interference. Is antenna/cable connection loose?
Sound OK. Poor picture.	Re-orient antenna. Try another channel — possible station trouble. Adjust VIDEO MENU options. Trouble with cable-TV system? Is antenna/cable connection loose?
No picture or sound.	Is TV on? Is there power in wall outlet? Is TV plugged in? Is antenna hooked up? Is cable hooked up? Trouble with cable-TV system? Check auxiliary audio/video equipment. Check channel selection. Is the channel blocked by PARENTAL CONTROL?
Picture blurred or distorted. Ghost in picture.	Check antenna or cable hook up for broken wires. Try another channel — possible station trouble. Check for local interference.
No color, or poor color.	Is it a color program? Check antenna or cable hook up for broken wires. Adjust VIDEO MENU options.
No sound.	VOLUME (VOL) setting may be too low. Check MUTE button operation on remote control. Is Speaker EXT/INT switch set to EXT?
Cannot select certain channels.	Channels may be skipped in CH. ADD/DEL option of SETUP MENU. Use AUTO PROGRAM a second time.
No closed captions	Are captions available? Is CAPTION 1, CAPTION 2, CAPTION 3, OR CAPTION 4 selected using the CAPTIONS option on the SETUP MENU?
Black or blue box covers half of screen.	Is text information available? Is TEXT 1, TEXT 2, TEXT 3 or TEXT 4 selected in the CAPTIONS option of the SETUP MENU.
No picture or sound when VIDEO 1 or VIDEO 2 source is selected.	Is audio/video source hooked up properly? Are all wires connected to VIDEO 1 IN or VIDEO 2 IN jacks on connection center?
No stereo sound or weak stereo sound when using a stereo VCR.	Check AUDIO mode. Was stereo sound present before selecting VIDEO 1 or VIDEO 2 source?
PIP inset frame is black or lacks contrast when selecting VIDEO 1 for PIP inset.	Adjust PIP COLOR AND CONTRAST settings in PIP MENU. Are all wires connected to VIDEO 1 IN jacks on connection center?
PIP inset frame is "snowy" when using ANT/ CABLE 1 or 2 for PIP and VIDEO 1 for main picture.	Is TV/VCR switch on the VCR in the TV position?
No picture when using VIDEO 1 for PIP inset source and ANT/CABLE 1 or 2 for main picture.	Is TV/VCR switch on the VCR in the TV position?
Remote control does not work.	Are batteries okay? Is TV turned ON? Is remote in TV mode?

Always request that your technician use only genuine Zenith exact replacement parts for continued Quality and Safety performance. Keep your Zenith ALL Zenith.

NOTES:

- If your TV fails to respond to the PICTURE PREF. selection, or to any other menu selection, you must reset the TV. Simply disconnect the AC power cord from the power outlet. Wait a few minutes, then plug the TV back into the power outlet. You will have to reset the clock to the current time.
- Unplugging the TV does not deactivate the Parental Control.

REPLACEMENT PRODUCT REGISTRATION CARD

You could win a full refund on your new Zenith product.

Look for the Product Registration Card on your new video product.

Each month a drawing is held by Zenith from the completed Product Registration Cards received during the preceding month. Zenith will reimburse the winner for the full purchase price of the product purchased.

In order to participate, simply complete and return the Product Registration Card at once, even if you choose not to complete the information and interests portion of the questionnaire.

The odds of winning the free drawing described above, depend on the number of participants. Free drawing offer is void in Canada and other places where restricted or prohibited by law. Offer is void for Hotel/Motel and Institutional models. Rental models are not eligible.

Product Card lost or misplaced?

The Product Registration Card furnished with your video product is pre-printed with its Model and Serial numbers. Please fill out the card and mail it at your earliest convenience. It is imperative that Zenith know how to reach you promptly if we discover a safety problem that would affect you. If the original card has been lost or misplaced, you may use the replacement card provided below. Either card will qualify you for the free drawing, but you are limited to only one entry in the drawing. Complete the card, place it in an envelope and mail it to:

Zenith Electronics Corporation P. O. Box 173257
Denver, CO 80217-3257

Use the replacement Product Registration Card only if the original card has been misplaced or lost.

PHOTOCOPY AND CUT ALONG DASHED LINE **Zenith Product Registration Card** H5Z01-01 1 Please Print Clearly or Type 2 Area Code Telephone 3. Ms. 1. Mr. 2. Mrs. 4. Miss Initial Last Name **First Name** Apt. No. Street City Date of Purchase Zip Code Dav State MODEL NUMBER Please record the model number Copy Numbers Here and serial number from the sticker From Label on Set on the back of your set. SERIAL NUMBER

AVISO PARA NUESTROS CLIENTES DE HABILA HISPANA

Zenith publica muchos de sus manuales de instrucciones en idioma español. Si le interesa pedir la versión en español de este manual, llene el formulario provisto a continuación, fotocópielo y envíelo a la dirección indicada.

No todos los manuales de instrucciones están disponibles en español. Sin embargo, podemos proporcionarle el manual que corresponde a un modelo similar a este, en el cual se describen casi todas las características del producto que usted utiliza.

El manual en español es gratis.

Instrucciones:

- 1. Llene el formulario proporcionado a continuación con la información solicitada.
- 2. Haga una fotocopia del formulario de pedido y envíela a:

Service Literature Department Zenith Video Tech Corporation 1000 N. Milwaukee Avenue Glenview, IL 60025

Fotocopie la p gina y corte la linea punteado						
	Formulario de pedido	de su manual de instrucciones	206-2948 R-C8			
El producto: Número de modelo		deograbadora Dotro (lo encontrará en la parte posterior del aparato)				
Nombre						
Dirección		Apartamento				
Ciudad	Estado	Código postal				

BROKEN OR LOST REMOTE CONTROL?



For an Exact Replacement Remote Control for your new Zenith Television, see your local Zenith Dealer or order direct by calling 1-800-255-6790. To assure the correct remote for your new Zenith, please have your television's model number ready!

ONLY \$39.95

OTHER FINE ACCESSORIES FOR YOUR TELEVISION.

Wireless Speaker System:

- · Wireless speakers receive sound from TV, VCR, or Stereo through walls, floors, or outside.
- Creates an instant home entertainment center!
- Speakers are easy to move--"no cord clutter." An attractive addition to any room.
- Works up to 150 feet! Indoors and outdoors.



To order these fine accessories,

7EN800 WIRELESS SPEAKER SYSTEM **ONLY \$249.95**

Wireless Headphone System:

- Wireless Headphones receive sound from TV. VCR or Stereo through walls, floors or outside.
- Allows freedom of activity while relaxing or working around your home.
- Great for bedroom TV--listen without disturbing
- Works up to 150 feet! Indoors and outdoors.
- Great for the hearing-impaired.

PHOTOCOPY PAGE AND DETACH HERE



7FN204 WIRELESS HEADPHONE SYSTEM **ONLY \$119.95**

CV4000 Surround Sound Stereo Speakers:

- A Sound so real...almost as if you were part of the action!
- An ideal addition to any Home Theater system.
- · Contemporary black finish complements any room.
- · For use with any Surround Sound compatible TV.
- Bookshelf size, can be wall mounted or set on a shelf.

PRICE PER ITEM

SUBTOTAL

STATE SALES TAX

TOTAL

PRICE



DUANTITY

ITEM NUMBER DESCRIPTION please fill out this card and return a photocopy to: Attn: Accessory Offers Zenith Video Tech Corporation 1900 N. Austin Avenue Chicago, IL 60639 Sales Tax: Please add your state sales tax if you live in one of the following states. or call 1-800-255-6790 CA 7 3/4%. GA 4%, IL 8 3/4%, KS 4.9%, KY 6%, ME 8%, PA 8%, RI 7%, TX 7 3/4%, VA 4 1/2%, WA 8.2%.

	Check or money order (Made payable to Zenith Video Tech Corp.)								PA 8						
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TV Me				of unit)		Serial n stick		 of ur	nit)	 M (Ap	/ lo. I prox. d	Day ate of	/ f puro	Yr.

PLEASE ALLOW UP TO 3 WEEKS FOR DELIVERY. THANK YOU!

0, 170, 171 17E10, 177 O.E.70.	i	
	SHIPPING & HANDLING	\$4.50
	TOTAL AMOUNT OF ORDER	
SHIP TO:		
Telephone: ()		
Name:		
Address:		
Apt. #	City	
State	Zip Code	

NOTE: Orders carronly be sent to customers within the United States.

YOUR ZENITH WARRANTY

Consumer Protection Plan for Zenith Projection TV

Welcome into the Zenith family! We believe that you will be pleased with your new Zenith Projection TV. Please read this Consumer Protection Plan carefully. It is a "ONE YEAR FULL WARRANTY," plus a limited second year picture tube warranty, as defined under federal law. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state within the U.S.A.

Zenith's Responsibility

Service Labor and Parts — During a period of one year from effective warranty date, Zenith will supply new or remanufactured replacement picture tubes or other parts, and will pay for service labor by a Zenith Authorized service center, when such parts or service labor are needed to repair the product as a result of manufacturing defects. Further, Zenith will supply a new or remanufactured replacement for any picture tube which fails during the second year after effective warranty date because of a manufacturing defect. Replacement parts are warranted for the remaining portion of the original warranty period. The above service labor warranty applies only in the U.S.A.

On-Site Service — Warranty service is provided when the Projection TV is installed.

Not Covered — This warranty covers manufacturing defects and does not cover installation, adjustment of customer controls in the home, installation or repair of home antenna systems, cable converters or cable company-supplied equipment; it also does not cover damage due to misuse, abuse, negligence, acts of God or other causes beyond the control of Zenith. Any alteration of the product after manufacture voids this warranty in its entirety.

Owner's Responsibility

Effective Warranty Date — Warranty begins on the date of original consumer installation. For your convenience, keep the dealers dated bill of sale or delivery ticket as evidence of the purchase date.

Operating Guide — Read your Operating Guide carefully so that you will understand the operation of your set and how to adjust the customer controls.

Antenna — Reception problems caused by inadequate home antennas or faulty antenna connections are the owner's responsibility.

Important: Product Registration — Please fill out and mail your Owner Registration Card. It is imperative that Zenith know how to reach you promptly if we should discover a safety problem that could affect you.

Warranty Service — For warranty service information, contact any Zenith Authorized service center. Parts and service labor that are Zenith's responsibility (see above) will be provided without charge. Other service is at the owner's expense. If you have any problem in obtaining satisfactory warranty service, call or write:

Zenith Electronics Corporation

Customer Service Department 1000 N. Milwaukee Avenue Glenview, IL 60025 Telephone: (312) 745-5152 Mon-Fri, 8:00 a.m. - 4:30 p.m. Central Time

NOTE: Before you ask for Warranty service, check the Operating Guide section entitled, "MAINTENANCE AND TROUBLESHOOTING." It may be possible to

avoid a service call.